

SUPPLEMENTAL AMENDMENT & RESPONSE UNDER 37 CFR § 1.116 - EXPEDITED PROCEDURE
Serial Number: 09/837602
Filing Date: April 18, 2001
Title: DNA ENCODING A DNA REPAIR PROTEIN

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In the Claims

09/837,602

Please amend the claims as follows:

1. (Previously presented) An isolated and purified nucleic acid molecule encoding a vertebrate DNA repair polypeptide having SEQ ID NO:2, wherein the polypeptide has a molecular weight of about 95000 Da as determined by SDS-PAGE.
2. (Previously presented) The nucleic acid molecule of claim 1 which has SEQ ID NO:1.
3. (Canceled)
- I-1 3/4. (Previously presented) An isolated and purified DNA molecule consisting of SEQ ID NO:1, or a DNA molecule which is fully complementary thereto.
- 5-19. (Canceled)
- 4 20. (Previously presented) An isolated nucleic acid molecule comprising a promoter operably linked to a nucleic acid segment encoding SEQ ID NO:2.
- 5 21. (Previously presented) The nucleic acid molecule of claim 20 wherein the nucleic acid segment has SEQ ID NO:1.
- 6 22. (Currently amended) An expression vector comprising a promoter operably linked to a nucleic acid segment which encodes a fusion polypeptide comprising at least a portion of a DNA repair polypeptide which binds an antibody specific for SEQ ID NO:2, wherein the portion of the DNA repair polypeptide includes residues 399 to 751 of SEQ ID NO:2.

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- 7 ~~23~~. (Previously presented) An isolated and purified nucleic acid molecule encoding a vertebrate DNA repair polypeptide, wherein the polypeptide has a molecular weight of about 95000 Da as determined by SDS-PAGE, wherein the nucleic acid molecule has SEQ ID NO:1.
- 8 ~~24~~. (Previously presented) The nucleic acid molecule of claim 1, ^{3 4 6 7} ~~4, 20, 22 or 23~~ which is labeled.
- ²⁵ ~~25~~. (Canceled)
- 9 ~~26~~. (Previously presented) The nucleic acid molecule of claim ⁶ ~~22~~ wherein the fusion polypeptide is a fusion of glutathione S-transferase and at least a portion of the DNA repair polypeptide.
- 10 ~~27~~. (Previously presented) The nucleic acid molecule of claim ⁶ ~~22~~ wherein the fusion polypeptide is a fusion of a histidine tag and at least a portion of the DNA repair polypeptide.
- 11 ~~28~~. (Previously presented) The nucleic acid molecule of claim 1 wherein SEQ ID NO:2 is immunogenic, binds DNA, forms a complex with hMre11/hRad50, or has nuclease activity when associated with hMre11/hRad50.